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OPERATING EXPERIENCE WEEKLY SUMMARY

Office of Nuclear and Facility Safety

October 9 - October 15, 1998

Summary 98-41

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October 9 through October 15, 1998

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EVENTS

1. OMEGA SPRINKLER RECALL

On October 14, 1998, the U.S. Consumer Product Safety Commission (CPSC) officially recalled the Omega brand fire sprinklers that have been manufactured since 1982 by Central Sprinkler Corporation and a subsidiary, Central Sprinkler Company. The CPSC staff believes that these sprinklers are defective and are likely to fail in a fire situation. The sprinklers may not properly activate in the event of a fire, thus exposing the public to bodily injury or death. Central Sprinkler will replace the Omega sprinklers at no cost with glass bulb fire sprinklers and will reimburse consumers for some costs associated with removing and replacing the sprinklers. CPCS is aware of 17 fires in which Omega fire sprinklers reportedly failed to operate, resulting in at least four injuries and over $4.3 million in property damage. (Press Release 99-008)

CPSC has issued a recall for Omega sprinkler models marked as C1 (or C-1), C1A (or C-1A), C-1A PRO (or C1-A PRO), C1-A PRO QR, EC-20, EC-20A, R-1, R-1A, R-1M, Flow Control (FC, Flow Control-FC), Protector-M or M Protector (Upright, Pendent, Sidewall, Sidewall EC), HEC-12, EC-12 RES, HEC-12 EC, HEC-12 EC PRO, HEC-12 ID, HEC-12 PRO, HEC-12 PRO QR, HEC-20, Prohibitor QR, and AC. Figure 1-1 depicts some of these Omega models.

Figure 1-1. Omega Sprinklers

OEAF engineers reported Omega sprinkler deficiencies in Weekly Summaries 98-12 and 97-49. These Weekly Summaries discussed an event in which an engineer at the Hanford Site Plutonium Finishing Plant notified a building emergency director that three of seven Omega flow control sprinklers removed from the facility failed during testing. The manufacturer, Central Sprinkler Corporation, notified customers of a potential defect with its Omega series sprinklers and asked them to submit samples for testing. Central Sprinkler Corporation determined that the Omega sprinklers failed to activate at low pressures because of reactions between an internal O-ring and residual hydrocarbons in the sprinkler system water from cutting oils or from improper use of stop-leak products. In June 1996, Central Sprinkler changed the O-ring material from ethylene propylene diene monomer to silicone, eliminating the hydrocarbon reaction problem. (ORPS Report RL--PHMC-PFP-1997-0050)

Central Sprinkler established the Omega Sprinkler Recall Hotline, (800) 896-5685, and a website at http://www.omegarecall.com for consumers to obtain replacements and reimbursements. Consumers must submit a claim and release to Central Sprinkler, postmarked by August 1, 1999, to obtain reimbursement for any installation costs. Additional information about the CPSC recall can be obtained by calling the Commission at (800) 638-2772 or accessing its website at http://www.cpsc.gov/cpscpub/prerel/prhtml99/99008.html. The CPSC website includes a video news release to help consumers identify the sprinklers.

The CPSC warns that because Omegas may not operate in a fire, it is particularly important that consumers have at least one fully operational smoke detector on every floor of their home, especially near bedrooms. They also note that consumers should ensure the detector's batteries are working by testing them every month and that consumers should have a well-defined and rehearsed escape plan and an alternative escape plan in the event of a fire. "Your Home Fire Safety Checklist" is available at the CPCS website or by writing to CPSC, Washington, D.C. 20207.

KEYWORDS: fire suppression, inspection

FUNCTIONAL AREAS: Fire Protection

2. CONTAMINATED WATER SPILL AT LOS ALAMOS

On October 1, 1998, at the Los Alamos National Laboratory Plutonium Processing and Handling Facility, facilities management personnel discovered that approximately 300 liters of contaminated water had spilled onto the floor of three pump rooms, two adjacent rooms, a basement, and a switchgear room during tank flushing operations. Waste management personnel directed facilities management personnel to stop the tank flushing operation. Radiological control technicians surveyed the rooms and detected between 2,000 and 200,000 dpm of alpha contamination in them. They temporarily posted three of the rooms, which had been radiological control areas, as contaminated areas. The facility manager directed personnel to evacuate several laboratories because of an acid smell until industrial hygiene personnel could determine if a hazardous environment existed. Industrial hygiene personnel measured the air quality and determined that no hazardous chemical fume levels existed and that it was safe for personnel to return to their work areas. Radiological control technicians continue decontamination efforts. Failure to verify the correct system configuration and inadequate communications led to the spread of contamination and a costly clean-up effort. (ORPS Report ALO-LA-LANL-TA55-1998-0044)

Investigators determined that the spill occurred when facilities management personnel attempted to flush tanks to a liquid waste treatment facility through an acid waste line. However, liquid waste treatment personnel had previously closed an isolation valve for maintenance. The valve connected the acid waste line and the liquid waste treatment facility. Investigators determined that the closed valve allowed water to back up into the pump rooms and seep into the adjacent rooms. Investigators determined that liquid waste treatment personnel normally notify waste management personnel of configuration changes, who in turn notify operations center personnel. However, liquid waste treatment personnel notified operations center personnel directly when they closed the isolation valve, because waste management personnel were not available. Investigators determined that no one notified waste management personnel of the configuration change and that waste management personnel did not verify the system configuration before allowing facilities management personnel to flush the tanks.

NFS has reported on inadequate configuration control in several Weekly Summaries. Following are some examples.

- Weekly Summary 98-19 reported that two operators at the Idaho National Environmental Engineering Advanced Test Reactor Facility had inserted an experiment capsule into the wrong capsule irradiation position. Investigators learned that the operators then wrongly concluded that the experiment was loaded in the correct position. During the next scheduled outage, two other operators

discharged what they incorrectly believed was the experiment capsule. They noticed that it did not look like an experiment capsule but that it looked like a flow restrictor. However, they did not question or report this observed discrepancy. (ORPS Report ID--LITC-ATR-1998-0008)

- Weekly Summary 98-18 reported that facility personnel at the Idaho Chemical Processing Plant discovered that data from a main stack gaseous monitor was in error. Investigators determined that monitor installers had changed a sample point specified in the original design to one downstream of a vacuum relief valve designed to add atmospheric air to the stack sample flow. The original design sample point was on the suction side of the sample blower, upstream of the relief valve. Because the gaseous monitor pump was not strong enough to draw an adequate flow from that low-pressure point, the installers moved the sample point to the higher-pressure discharge side of the sample blower. However, they did not use existing site configuration control requirements when they changed the sample point. (ORPS Report ID-LITC-WASTEMNGT-1998-0002)

- Weekly Summary 97-38 reported that an operator error at the Los Alamos National Laboratory resulted in a scram of the solution high-energy burst assembly during a subcritical operation. Investigators determined that because the operator failed to verify adequate vacuum in a purge gas accumulator, as required by a preoperational checklist, a vacuum sensor for the accumulator sent a signal to the scram circuit, causing the scram. (ORPS Report ALO-LA-LANL-TA18-1997-0012)

These events underscore the importance of workers maintaining questioning attitudes and paying attention to detail to ensure configuration control is maintained. Configuration control is important to ensure the safe operation, testing, and maintenance of facility equipment and systems. If workers had performed independent verifications, this event could have been prevented. Operators and workers in charge of authorizing work should be trained in the importance of questioning attitudes and attention to detail. They should also be trained in how to correctly perform independent verifications. They must also be aware of and communicate any action, operation, or equipment status that could impact an on-coming shift. Conduct of operations principles (such as complete and thorough communications and the need to satisfy all the requirements of the shift turnover process) are principal components for efficient, effective, and safe operations. In addition, managers are responsible for ensuring that policies are adequately defined and adhered to, both to keep events from occurring and to enhance the safety of personnel, equipment, and the environment. However, facility managers should ensure that work controls are rigorous enough to allow workers to complete jobs safely and efficiently without relying solely on communications.

Facility managers should review the following documents to ensure that (1) operations personnel understand their responsibilities and (2) management policies and procedures for configuration controls and operator verifications are in place and are followed.

- DOE O 5480.19, *Conduct of Operations Requirements for DOE Facilities*, chapter VIII, “Control of Equipment and System Status,” states that managers at DOE facilities are required to establish administrative control programs to handle configuration changes resulting from maintenance, modifications, and testing. It also states that control of equipment and system status should be established in accordance with formal guidance to ensure that proper configuration is maintained.

- DOE-STD-1073-93–Pt.1 and –Pt.2*, Guide for Operational Configuration Management Programs, Including the Adjunct Programs of Design Reconstitution and Material Condition and Aging Management*, provides program criteria and implementation guidance for establishing consistency among design requirements,

physical configuration, and facility documentation and for maintaining this consistency. This standard states that an effective configuration management program will increase the availability and retrievability of accurate information to support safe, sound, and timely decision-making related to facility design and operations.

- DOE-STD-1050-93, *Guideline to Good Practices for Planning, Scheduling, and Coordination of Maintenance at DOE Nuclear Facilities*, provides information on work controls and work coordination.

- DOE-STD-1031-92, *Guide to Good Practices for Communications*, discusses the need for clear, formal, and disciplined communications and provides guides to improve communications.

- DOE/EH-0502, Safety Notice 95-02, *Independent Verification and Self-Checking,* September 1995, provides guidance and good practices for performing independent verification. It can be obtained by contacting the ES&H Information Center, (800) 473-4375, or by writing to U.S. Department of Energy, ES&H Information Center, EH-72, 19901 Germantown Rd., Germantown, MD 20874. Safety notices are also available on the OEAF website at http://tis.eh.doe.gov:80/web/oeaf/lessons_learned/ons/ons.html.

KEYWORDS: configuration management, modification control, communication

FUNCTIONAL AREAS: Configuration Control, Technical Support, Modifications

3. FIRE PROTECTION SYSTEM DEGRADATION AT IDAHO

On October 7, 1998, at the Idaho Nuclear Engineering and Technology Center, electronics technicians discovered a mispositioned “trouble/silence” switch in a fire supervisory panel. While reactivating a halon system they had taken out of service to support quarterly preventive maintenance tests, they requested verification of alarm status from the main fire alarm control room at the Central Facilities Area. Personnel in the main fire alarm control room informed them that an expected trouble alarm did not annunciate. The maintenance supervisor initiated an emergency outage and work order to troubleshoot the system. During troubleshooting, technicians discovered the “trouble/silence” switch in the abnormal “silence” position, which suppresses local alarms and transmission of trouble alarms to the main fire alarm control room but does not affect fire alarms. At this time, they also discovered a faulty supervisory panel communications card, which prevented transmission of both fire and trouble alarms. Technicians determined that the mispositioned switch had prevented detection of the communications card failure. The disabling of local alarms increases the hazards from fire and smoke by depriving personnel of timely notification. (ORPS Reports ID--LITC-WASTEMNGT-1998-0019 and ID--LITC-WASTEMNGT-1998-0020)

Investigators determined that the “trouble/silence” switch is located inside a closed panel, the door of which is monitored by a tamper switch, and that there is no external indication of switch position. They reviewed a supervisory system events log that showed that the panel door was opened for approximately 40 seconds during a temporary power outage on July 17. Investigators believe that someone operated the switch to silence a local alarm caused by the outage but did not reposition it after power was restored. They have not determined the direct cause of damage to the communications card.

In Weekly Summary 98-02, NFS reported on two events involving abnormalities in fire protection supervisory panels at the Los Alamos

National Laboratory. In the first event, fire protection personnel performing an annual check of the fire protection system discovered that the circuit breaker for normal ac power to a supervisory panel was open and the backup batteries were depleted. Investigators determined that fire protection personnel had de-energized the panel to conduct an annual test approximately two months earlier. (ORPS Report ALO-LA-LANL-PHYSCOMPLX-1998-0001). In the second event, an operations mentor discovered that a fire protection technician had left a supervisory panel unattended with a screwdriver wedged in an alarm acknowledge button to silence nuisance alarms. He had also removed the alarm fuses, disabling all alarm horns and lights in a building wing. (ORPS Report ALO-LA-LANL-CMR-1998-0001)

OEAF engineers searched the ORPS database for nature of occurrence safety status degradation and all narrative fire protection and identified 187 occurrences. Of these 187, OEAF engineers confirmed that facility managers reported direct causes for 110 occurrences as either personnel error, management problems, or procedure problems. They reported personnel error as the direct cause for 41 percent, management problems as the direct cause for 35 percent, and procedure problems as the direct cause for 16 percent. Procedure not used or used incorrectly and inattention to detail accounted for 78 percent of personnel errors.

These events are significant because proper testing and operation of fire alarm panels are important for preventing injury, loss of life, or loss of material in case of a fire. DOE O 420.1, *Facility Safety*, requires fire protection systems for DOE facilities to include means for notifying and evacuating building occupants and means for summoning a fire department. Fire protection supervisory systems detect conditions indicative of fire, actuate local warnings, transmit notifications to a continuously attended location, and in some cases, actuate systems to extinguish or limit the spread of fire and smoke. Facility managers should review the design and arrangement of their fire protection supervisory systems and should ensure reliability through measures which may include adding status checks for fire protection systems and components to local rounds sheets; increasing the scope of fire protection surveillance programs; or increasing the frequency of system and component surveillance. Also, indoctrination and training programs should emphasize that personnel may not change the status of fire protection systems or components without proper authorization.

These events also underscore the importance of attention to detail by personnel who operate and maintain systems important to safety. Managers and supervisors should consider methods to heighten general awareness of the consequences of individual actions. DOE/EH-0502, Safety Notice 95-02, *Independent Verification and Self-Checking,* describes a technique that requires workers to (1) stop before performing an action to eliminate distractions and identify the correct component; (2) think about the action, expected response, and actions required if that response does not occur; (3) act by reconfirming the component and completing the action; and (4) review by comparing the actual versus the expected response. Facility managers should incorporate these principles into procedures, job briefings, and employee training programs. Safety Notice 95-02 can be obtained by contacting the ES&H Information Center at (301) 903-0449 or (800) 473-4375, or by writing to U.S. Department of Energy, ES&H Information Center, EH-72, 19901 Germantown Rd., Germantown, MD 20874. Safety notices are also available on the OEAF website, http://tis.eh.doe.gov:80/web/oeaf/lessons_learned/ons/ons.html.

KEYWORDS: alarm, battery, fire protection, supervisory alarm, switch

FUNCTIONAL AREAS: Electrical Maintenance, Fire Protection, Operations

4. CONDUIT BENDER FALLS THROUGH ACOUSTICAL CEILING

On October 6, 1998, at the Oak Ridge Y-12 Site, a conduit bender fell while an electrician was working in an attic. The 8.5-lb bender broke through a 2-ft by 2-ft ceiling tile into an occupied conference room. The individual closest to the location where the bender fell heard the noise and moved further away from the area where the tool landed. No one was injured, but anyone in the path of the falling object could have been injured. (ORPS Report ORO--LMES-Y12CM-1998-0003)

Investigators determined that the electrician had been using the bender in the attic before it fell and had leaned it in an upright position on the attic walkway. They also determined that the hazard analysis checklist that was written for the project did not include the use of toeboards on the walkway to restrict falling objects.

This event underscores the importance of using effective work control practices and job planning. Facility managers should review 29 CFR 1926.502, subpart M, *Fall Protection Systems Criteria and Practices*, section (j), provisions for protection from falling objects, and 29 CFR 1910.28, subpart D, *Walking-Working Surfaces*, section (a), general requirements for all scaffolds.

NFS reported a similar event in Weekly Summary 98-39. On September 14, 1998, at the Oak Ridge East Tennessee Technology Park, workers performing asbestos abatement activities in the overhead dislodged a pipe from its supports. An 8-ft section of 3-in. diameter pipe fell approximately 20 feet into an area that had unrestricted access. (ORPS Report ORO--BNFL-K33-1998-0008)

OEAF engineers searched the ORPS database and found the following events, both of which occurred at the Oak Ridge Institute for Science & Education.

- On May 11, 1998, a worker staging material in an attic moved a 20-lb propane tank from a catwalk to an unstable area. The tank fell through the ceiling into an office area. Facility managers determined that supervisors must coordinate work activities so that no work is performed in the attic space during normal building business hours. (ORPS Report ORO--ORAU-ORISE-1998-0004)

- On July 16, 1998, a worker entered an attic area to retrieve a piece of pipe from storage. When he picked up the pipe and turned around, the pipe hit a flexible duct line running to a register, causing a 4-in. by 12-in. piece of ceiling tile to fall into the office below. (ORPS Report ORO--ORAU-ORISE-1998-0006)

These events emphasize the importance of taking timely and effective corrective actions. Facility managers should review the following guidance and ensure that corrective actions are effectively implemented to reduce the recurrence of events.

DOE-STD-1010-92, *Guide to Good Practices for Incorporating Operating Experiences*, and DOE-STD-7501-95, *Development of DOE Lessons Learned Programs*, provide guidance on a systematic approach for incorporating operating experiences. The standards describe an approach for implementing the following elements into site lessons-learned programs.

- selecting and analyzing events for facility operation

- ensuring that event reports and subsequent analyses are distributed to appropriate organizations

- incorporating report information into new or existing programs and training
- tracking action plans to ensure that corrective actions are completed
- assessing effectiveness of the changes

DOE-STD-1004-92, *Root Cause Analysis Guidance Document*, chapter 6, "Corrective Actions," states that proposed corrective actions should be (1) reviewed to ensure the appropriate criteria are met, (2) prioritized based on importance, (3) scheduled, (4) entered into a commitment tracking system, and (5) implemented in a timely manner. It states that a complete corrective action program should be based on specific causes of the occurrence, lessons learned from other facilities, appraisals, and employee suggestions. It also states that a successful program requires management involvement at the appropriate level and willingness to take responsibility and allocate adequate resources for corrective actions. Chapter 8, "Follow-Up," provides information on following up on corrective actions to determine if they have been effective in resolving problems. It states that corrective actions should be tracked to ensure they have been properly implemented and are functioning as intended. It also states that the recurrence of the same or similar events must be identified and analyzed and, if the same or similar event recurs, the original occurrence should be investigated to determine why corrective actions were not effective.

KEYWORDS: fall, job-hazard analysis

FUNCTIONAL AREAS: Hazards and Barrier Analysis, Work Planning

OEAF FOLLOW-UP ACTIVITY

1. UPDATE ON THE SPREAD OF CONTAMINATION AT HANFORD

OEAF engineers reported in Weekly Summary 98-40 that Hanford health physics technicians detected the spread of strontium-90 contamination to several facilities, garbage cans, trash trucks, and the city of Richland landfill. Investigators have since learned more. (ORPS Reports RL--PHMC-FSS-1998-0021 and RL--PHMC-WESF-1998-0012)

- Hanford personnel continue to have strong indications that fruit flies were the transport mechanism for contamination that was found within a 10-acre area located near B-Plant. Hanford personnel set out fly traps throughout the site and have not found any contaminated flies outside the 10-acre area. They therefore believe that no regional fruit crops have been affected. In any case, however, Hanford personnel have implemented an extensive insect spraying program and are developing plans to improve pest control activities.
- Hanford personnel have identified a diversion box within the 10-acre area as a source of contamination. They are continuing to search for additional sources. In addition, investigation is continuing to determine if a sugar-based contamination fixative is a contributing factor in the spread of contamination. Hanford personnel believe that flies may be attracted to the fixative.

- Hanford personnel have completed excavation of the city of Richland landfill cell most likely to contain contaminated waste material deposited from Hanford. They are discussing further monitoring of the landfill cell and the need for excavating other landfill cells with the city and with the State of Washington Department of Health. Hanford personnel would complete any further monitoring of the landfill cell with a "geo-probe." They have removed approximately 200 tons of waste and returned it to the Hanford site's low-level burial ground.

- Hanford personnel believe that the transport mechanism for contamination in the trailer (located within the 10-acre area) was human beings. They also believe that the contamination may have been the result of a separate contamination event because the radioisotope ratios of strontium to cesium are different from the ratios in the rest of the 10-acre area.

- Hanford personnel are performing bioassay testing on workers who were in or near the 10-acre area. Of the 32 bioassay results returned, 31 have shown no internal uptakes. The remaining sample provided questionable results, so personnel will resample the worker.

Investigators will continue to ascertain if additional contamination has spread and will attempt to find the contamination sources. The facility manager will implement corrective actions as necessary.

Hanford personnel have established a website that contains the latest information on the contamination event and that addresses worker and public health and safety concerns: http://www.hanford.gov/safety/conspread/index.html. Links to DOE radiation protection documents can be found at http://tis-nt.eh.doe.gov/wpphm/regs/regs.htm.

KEYWORDS: accountability, radiation protection, procedure

FUNCTIONAL AREAS: Radiation Protection, Procedures, Materials Handling/Storage

PRICE-ANDERSON AMENDMENTS ACT (PAAA) INFORMATION

1. TWO PRELIMINARY NOTICES OF VIOLATION FOR BIOASSAY PROGRAM DEFICIENCIES

On September 21, 1998, the DOE Office of Enforcement and Investigation issued two Preliminary Notices of Violation under the Price-Anderson Amendments Act for bioassay program deficiencies at the Oak Ridge Site. The Office of Enforcement and Investigation issued one Preliminary Notice of Violation to each company involved in the administration of the program: MK-Ferguson of Oak Ridge Company (MK-F) and Lockheed Martin Energy Systems (LMES). LMES is the site integrating contractor; MK-F was a subcontractor to LMES in 1996 and 1997 and was the prime contractor for construction and construction management operations in 1995, when the exposures occurred. The Notices propose violations for failure to identify significant intakes for two workers over approximately a two-year period. (NTS Reports NTS-ORO--LMES-LMESGEN-1997-0001 and NTS-ORO--MKFO-X10CONSTRM-1997-0001)

The Office of Enforcement and Investigation staff identified multiple deficiencies and classified them as Severity Level III violations in the Preliminary Notices of Violation. However, investigators stated that these proposed violations would normally be classified as Severity Level II violations and assessed civil penalties, but that it was appropriate to reduce them to Severity Level III violations without civil penalties because comprehensive corrective actions were completed before the enforcement conference was held. Severity Level II violations are significant violations that demonstrate a lack of attention or carelessness toward safety that could potentially lead to adverse impacts. A Severity Level III violation is characterized as a less serious violation that, if left uncorrected, could lead to more serious safety concerns.

Investigators determined that these deficiencies represented potential violations of 10 CFR 835, *Occupational Radiation Protection*. The violations included the following.

- MK-F personnel failed to implement an internal dose evaluation program that ensured compliance with DOE's annual exposure limits and record-keeping requirements. Specifically, two workers received intakes of plutonium and americium, but the internal dosimetry personnel failed to identify the intakes in a timely manner. In addition, 1996 internal worker radiation exposure records failed to report the worker's internal intakes.

- Facility personnel failed to ensure that administrative and procedural controls were in place to maintain radiation exposures of employees as low as reasonably achievable. Specifically, (1) two workers did not submit routine bioassay samples, (2) no one established a special bioassay program for two workers after routine bioassay sample results indicated they had received plutonium intakes greater than 100 mrem committed effective dose equivalent, and (3) MK-F personnel issued two workers incomplete annual radiation exposure reports.

- Facility personnel failed to implement work restrictions in accordance with written procedures. Specifically, (1) two workers were not restricted from entering radiological areas after they failed to submit bioassay samples in previous quarters, (2) employees were permitted to perform radiological work without anyone performing preliminary assessments of positive intakes that were discovered during routine bioassays, and (3) no one required additional urine samples from workers whose bioassay results indicated intakes in excess of 100 mrem.

LMES and MK-F managers have 30 days to reply to the Preliminary Notices of Violation and admit or deny the alleged violations. The Preliminary Notices of Violation will become final within a 30-day period if they provide written confirmation of admission and agreements made during the July 9, 1998, enforcement conference. Enforcement actions can be found at the Office of Enforcement and Investigation website at http://tis-nt.eh.doe.gov/enforce/.

NFS reported several issuances of Notices of Violation under the Price-Anderson Amendments Act. Some recent Notices of Violation were reported in Weekly Summaries 98-26, 98-15, and 98-11.

Under the provisions of the Price-Anderson Amendments Act, DOE can fine contractors for violations of Department rules, regulations, and compliance orders relating to nuclear safety requirements. DOE contractors who operate nuclear facilities or perform nuclear activities and fail to remain in compliance with such requirements could be subjected to Price-Anderson civil penalties under the work processes and quality improvement provisions of 10 CFR 830.120, *Quality Assurance Requirements,* and/or 10 CFR 835, *Occupational Radiation Protection*. These actions include Notices of Violation and, where appropriate, nonreimbursable civil penalties.

The primary consideration for determining whether DOE takes enforcement action is the actual or potential safety significance of the violation, coupled with how quickly the contractor acts to identify and correct problems. The Office of Enforcement and Investigation may reduce penalties when a DOE contractor promptly identifies a violation, reports it to DOE, and undertakes timely corrective action. DOE has the discretion to decide not to issue a Notice of Violation in certain cases.

The Noncompliance Tracking System (Weekly Summaries 95-17 and 95-20) provides a means for contractors to promptly report potential noncompliances and take advantage of provisions in the enforcement policy. DOE-STD-7501-95, *Development of DOE Lessons Learned Programs*, discusses management responsibility for incorporating appropriate corrective actions in a timely manner.

KEYWORDS: radiation protection, enforcement, Price-Anderson Act

FUNCTIONAL AREAS: Radiation Protection, Lessons Learned